



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

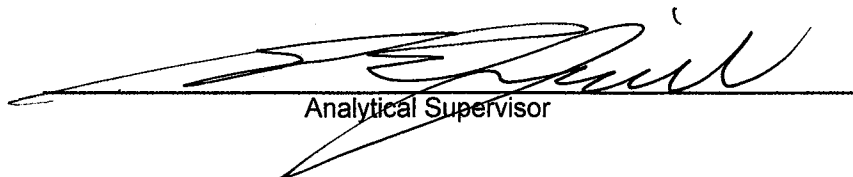
Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00002126
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.



Analytical Supervisor

Lab-Sample Number: K00002126001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 4.0
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: EMORY004.0RO
Date/Time Collected: 01/22/2009 10:50
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations
pH: 7.04 pH Units
Chlorine, residual:
Conductivity: 39 uMHO
Temperature: 1.17
Dissolved Oxygen: 10.24 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	16	mg/L	3.8	10	S Burchfield	1/25/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	20	mg/L	0.7	1	P Leathers	1/24/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	1/24/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	1/24/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002126002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: EMORY002.1RO
Date/Time Collected: 01/22/2009 11:46
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations
pH: 7.04 pH Units
Chlorine, residual:
Conductivity: 40 uMHO
Temperature: 1.78
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	14	mg/L	3.8	10	S Burchfield	1/25/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	22	mg/L	0.7	1	P Leathers	1/24/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	1/24/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	1/24/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002126003
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: EMORY001.7RO
Date/Time Collected: 01/22/2009 12:00
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations
pH: 7.95 pH Units
Chlorine, residual:
Conductivity: 182 uMHO
Temperature: 5.1
Dissolved Oxygen: 10.47 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	S Burchfield	1/25/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	90	mg/L	0.7	1	P Leathers	1/24/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	3.2	ml/L	0.10	0.10	P Leathers	1/24/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	1200	mg/L	10	10	S Burchfield	1/24/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002126004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: EMORY000.1RO
Date/Time Collected: 01/22/2009 12:13
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations
pH: 7.97 pH Units
Chlorine, residual:
Conductivity: 193 uMHO
Temperature: 5.64
Dissolved Oxygen: 10.20 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	120	mg/L	3.8	10	S Burchfield	1/25/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	94	mg/L	0.7	1	P Leathers	1/24/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	0.25	ml/L	0.10	0.10	P Leathers	1/24/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	66	mg/L	10	10	S Burchfield	1/24/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002126005
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3 near Hwy 70 Bridge
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: CLINC002.3RO
Date/Time Collected: 01/22/2009 12:26
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations
pH: 7.9 pH Units
Chlorine, residual:
Conductivity: 178 uMHO
Temperature: 7.11
Dissolved Oxygen: 10.10 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	S Burchfield	1/25/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	96	mg/L	0.7	1	P Leathers	1/24/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	1/24/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	1/24/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number:	K00002126006	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	8.0 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA ash spill	Conductivity:	199 uMHO
Project Site No.:		Temperature:	6.10
Station No.:	CLINC004.5RO	Dissolved Oxygen:	10.04 mg/L
Date/Time Collected:	01/22/2009 12:45	Other:	
Sampler's Name:	L. Everett	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	01/28/2009		
Date/Time Received:	01/23/2009 13:25		
Received By:	Ken Hitchman		

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	120	mg/L	3.8	10	S Burchfield	1/25/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	94	mg/L	0.7	1	P Leathers	1/24/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	1/24/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	1/24/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected



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Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00002126
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using good laboratory practices and in accordance with federal or state approved methodologies.

Analytical Supervisor

Lab-Sample Number: K00002126001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 4.0
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: EMORY004.0RO
Date/Time Collected: 01/22/2009 10:50
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations
pH: 7.04 pH Units
Chlorine, residual:
Conductivity: 39 uMHO
Temperature: 1.17
Dissolved Oxygen: 10.24 mg/L
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/26/2009				A Wilson	1/26/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	190	µg/L	2.9	10	A Bass	1/27/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	120	µg/L	6.4	10	M Pattanayek	1/27/2009
Antimony	2.2	µg/L	0.33	1	M Pattanayek	1/27/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	1/27/2009
Barium	23	µg/L	2.5	5	M Pattanayek	1/27/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	1/27/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	1/27/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	1/27/2009
Cobalt	0.32J	µg/L	0.04	1	M Pattanayek	1/27/2009
Copper	1.3	µg/L	0.38	1	M Pattanayek	1/27/2009
Lead	0.24J	µg/L	0.10	1	M Pattanayek	1/27/2009
Manganese	54	µg/L	0.42	1	M Pattanayek	1/27/2009
Nickel	1.3	µg/L	0.25	1	M Pattanayek	1/27/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	1/27/2009
Silver	0.03J	µg/L	0.03	0.25	M Pattanayek	1/27/2009
Thallium	0.32J	µg/L	0.03	1	M Pattanayek	1/27/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	1/27/2009
Zinc	3.9J	µg/L	1.9	5	M Pattanayek	1/27/2009

Lab-Sample Number: K00002126001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 4.0
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: EMORY004.0RO
Date/Time Collected: 01/22/2009 10:50
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations

pH: 7.04 pH Units
Chlorine, residual:
Conductivity: 39 uMHO
Temperature: 1.17
Dissolved Oxygen: 10.24 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.13	0.2	A Wilson	1/27/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002126002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: EMORY002.1RO
Date/Time Collected: 01/22/2009 11:46
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations

pH: 7.04 pH Units
Chlorine, residual:
Conductivity: 40 uMHO
Temperature: 1.78
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/26/2009				A Wilson	1/26/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	160	µg/L	2.9	10	A Bass	1/27/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	130	µg/L	6.4	10	M Pattanayek	1/27/2009
Antimony	0.37J	µg/L	0.33	1	M Pattanayek	1/27/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	1/27/2009
Barium	24	µg/L	2.5	5	M Pattanayek	1/27/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	1/27/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	1/27/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	1/27/2009
Cobalt	0.35J	µg/L	0.04	1	M Pattanayek	1/27/2009
Copper	0.55J	µg/L	0.38	1	M Pattanayek	1/27/2009
Lead	0.22J	µg/L	0.10	1	M Pattanayek	1/27/2009
Manganese	51	µg/L	0.42	1	M Pattanayek	1/27/2009
Nickel	1.3	µg/L	0.25	1	M Pattanayek	1/27/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	1/27/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	1/27/2009
Thallium	0.17J	µg/L	0.03	1	M Pattanayek	1/27/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	1/27/2009
Zinc	3.2J	µg/L	1.9	5	M Pattanayek	1/27/2009

Lab-Sample Number: K00002126002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: EMORY002.1RO
Date/Time Collected: 01/22/2009 11:46
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations
pH: 7.04 pH Units
Chlorine, residual:
Conductivity: 40 uMHO
Temperature: 1.78
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.13	0.2	A Wilson	1/27/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002126003
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: EMORY001.7RO
Date/Time Collected: 01/22/2009 12:00
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations
pH: 7.95 pH Units
Chlorine, residual:
Conductivity: 182 uMHO
Temperature: 5.1
Dissolved Oxygen: 10.47 mg/L
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/26/2009				A Wilson	1/26/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	10000	µg/L	2.9	10	A Bass	1/27/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	15000	µg/L	640.0	1000	M Pattanayek	1/27/2009
Antimony	1.2	µg/L	0.33	1	M Pattanayek	1/27/2009
Arsenic	19	µg/L	0.93	5	M Pattanayek	1/27/2009
Barium	310	µg/L	2.5	5	M Pattanayek	1/27/2009
Beryllium	1.6	µg/L	0.11	1	M Pattanayek	1/27/2009
Cadmium	0.60J	µg/L	0.41	1	M Pattanayek	1/27/2009
Chromium	8.0	µg/L	2.0	5	M Pattanayek	1/27/2009
Cobalt	7.8	µg/L	0.04	1	M Pattanayek	1/27/2009
Copper	22	µg/L	0.38	1	M Pattanayek	1/27/2009
Lead	16	µg/L	0.10	1	M Pattanayek	1/27/2009
Manganese	330	µg/L	0.42	1	M Pattanayek	1/27/2009
Nickel	13	µg/L	0.25	1	M Pattanayek	1/27/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	1/27/2009
Silver	0.10J	µg/L	0.03	0.25	M Pattanayek	1/27/2009
Thallium	1.1	µg/L	0.03	1	M Pattanayek	1/27/2009
Vanadium	43	µg/L	3.4	5	M Pattanayek	1/27/2009
Zinc	21	µg/L	1.9	5	M Pattanayek	1/27/2009

Lab-Sample Number: K00002126003
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: EMORY001.7RO
Date/Time Collected: 01/22/2009 12:00
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
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Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations

pH: 7.95 pH Units
Chlorine, residual:
Conductivity: 182 uMHO
Temperature: 5.1
Dissolved Oxygen: 10.47 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.13	0.2	A Wilson	1/27/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002126004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: EMORY000.1RO
Date/Time Collected: 01/22/2009 12:13
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations

pH: 7.97 pH Units
Chlorine, residual:
Conductivity: 193 uMHO
Temperature: 5.64
Dissolved Oxygen: 10.20 mg/L
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/26/2009				A Wilson	1/26/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	150	µg/L	2.9	10	A Bass	1/27/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	130	µg/L	6.4	10	M Pattanayek	1/27/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	1/27/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	1/27/2009
Barium	35	µg/L	2.5	5	M Pattanayek	1/27/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	1/27/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	1/27/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	1/27/2009
Cobalt	0.19J	µg/L	0.04	1	M Pattanayek	1/27/2009
Copper	1.3	µg/L	0.38	1	M Pattanayek	1/27/2009
Lead	0.32J	µg/L	0.10	1	M Pattanayek	1/27/2009
Manganese	30	µg/L	0.42	1	M Pattanayek	1/27/2009
Nickel	0.99J	µg/L	0.25	1	M Pattanayek	1/27/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	1/27/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	1/27/2009
Thallium	0.13J	µg/L	0.03	1	M Pattanayek	1/27/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	1/27/2009
Zinc	2.5J	µg/L	1.9	5	M Pattanayek	1/27/2009

Lab-Sample Number: K00002126004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: EMORY000.1RO
Date/Time Collected: 01/22/2009 12:13
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327-34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations
pH: 7.97 pH Units
Chlorine, residual:
Conductivity: 193 uMHO
Temperature: 5.64
Dissolved Oxygen: 10.20 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.17J	µg/L	0.13	0.2	A Wilson	1/27/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002126005
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3 near Hwy 70 Bridge
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: CLINC002.3RO
Date/Time Collected: 01/22/2009 12:26
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations
pH: 7.9 pH Units
Chlorine, residual:
Conductivity: 178 uMHO
Temperature: 7.11
Dissolved Oxygen: 10.10 mg/L
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/26/2009				A Wilson	1/26/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	170	µg/L	2.9	10	A Bass	1/27/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	170	µg/L	6.4	10	M Pattanayek	1/27/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	1/27/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	1/27/2009
Barium	36	µg/L	2.5	5	M Pattanayek	1/27/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	1/27/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	1/27/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	1/27/2009
Cobalt	0.28J	µg/L	0.04	1	M Pattanayek	1/27/2009
Copper	1.8	µg/L	0.38	1	M Pattanayek	1/27/2009
Lead	0.33J	µg/L	0.10	1	M Pattanayek	1/27/2009
Manganese	36	µg/L	0.42	1	M Pattanayek	1/27/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	1/27/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	1/27/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	1/27/2009
Thallium	0.10J	µg/L	0.03	1	M Pattanayek	1/27/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	1/27/2009
Zinc	2.6J	µg/L	1.9	5	M Pattanayek	1/27/2009

Lab-Sample Number: K00002126005
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3 near Hwy 70 Bridge
Sampler Project Name: TVA ash spill
Project Site No.:
Station No.: CLINC002.3RO
Date/Time Collected: 01/22/2009 12:26
Sampler's Name: L. Everett
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 01/28/2009
Date/Time Received: 01/23/2009 13:25
Received By: Ken Hitchman

Field Determinations
pH: 7.9 pH Units
Chlorine, residual:
Conductivity: 178 uMHO
Temperature: 7.11
Dissolved Oxygen: 10.10 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.13	0.2	A Wilson	1/27/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number:	K00002126006	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	8.0 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley F	Chlorine, residual:	
Sampler Project Name:	TVA ash spill	Conductivity:	199 uMHO
Project Site No.:		Temperature:	6.10
Station No.:	CLINC004.5RO	Dissolved Oxygen:	10.04 mg/L
Date/Time Collected:	01/22/2009 12:45	Other:	
Sampler's Name:	L. Everett	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327-34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	01/28/2009		
Date/Time Received:	01/23/2009 13:25		
Received By:	Ken Hitchman		

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/26/2009				A Wilson	1/26/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	89	µg/L	2.9	10	A Bass	1/27/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	64	µg/L	6.4	10	M Pattanayek	1/27/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	1/27/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	1/27/2009
Barium	33	µg/L	2.5	5	M Pattanayek	1/27/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	1/27/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	1/27/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	1/27/2009
Cobalt	0.16J	µg/L	0.04	1	M Pattanayek	1/27/2009
Copper	1.6	µg/L	0.38	1	M Pattanayek	1/27/2009
Lead	0.31J	µg/L	0.10	1	M Pattanayek	1/27/2009
Manganese	35	µg/L	0.42	1	M Pattanayek	1/27/2009
Nickel	0.99J	µg/L	0.25	1	M Pattanayek	1/27/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	1/27/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	1/27/2009
Thallium	0.07J	µg/L	0.03	1	M Pattanayek	1/27/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	1/27/2009
Zinc	2.5J	µg/L	1.9	5	M Pattanayek	1/27/2009

Lab-Sample Number:	K00002126006	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	8.0 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA ash spill	Conductivity:	199 uMHO
Project Site No.:		Temperature:	6.10
Station No.:	CLINC004.5RO	Dissolved Oxygen:	10.04 mg/L
Date/Time Collected:	01/22/2009 12:45	Other:	
Sampler's Name:	L. Everett	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	01/28/2009		
Date/Time Received:	01/23/2009 13:25		
Received By:	Ken Hitchman		

TEST: Mercury		METHOD: EPA 245.1					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Mercury	U	µg/L	0.13	0.2	A Wilson	1/27/2009	

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected